

1. Record Nr.	UNINA9910146413003321
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Titolo	Smart light-responsive materials [[electronic resource]] : azobenzene-containing polymers and liquid crystals // Yue Zhao And Tomiki Ikeda
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, c2009
ISBN	1-282-11331-3 9786612113314 0-470-43909-2 0-470-43908-4
Descrizione fisica	1 online resource (542 p.)
Altri autori (Persone)	IkedaTomiki
Disciplina	620.1 620.1/1295 620.11295
Soggetti	Smart materials Polymers - Optical properties Azo compounds Liquid crystals
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	SMART LIGHT-RESPONSIVE MATERIALS; CONTENTS; Preface; Contributors; 1 AZOBENZENE POLYMERS FOR PHOTONIC APPLICATIONS; 1.1. Introduction to Azobenzene; 1.1.1. Azobenzene Chromophores; 1.1.2. Azobenzene Photochemistry; 1.1.3. Classes of Azobenzene Systems; 1.2. Photoinduced Motions and Modulations; 1.2.1. Molecular Motion; 1.2.2. Photobiological Experiments; 1.2.3. Photoorientation; 1.2.4. Domain Motion; 1.2.5. Macroscopic Motion; 1.2.6. Other Applications of Azobenzenes; Acknowledgment; References; 2 PHOTO-INDUCED PHENOMENA IN SUPRAMOLECULAR AZOBENZENE MATERIALS; 2.1. Introduction 2.2. Photoorientation 2.3. Surface Relief Gratings; 2.4. Conclusion and Outlook; References; 3 PHOTODEFORMABLE MATERIALS AND PHOTOMECHANICAL EFFECTS BASED ON AZOBENZENE-CONTAINING POLYMERS AND LIQUID CRYSTALS; 3.1. Introduction; 3.2. Photodeformable Materials Based on Azobenzene-Containing Polymer

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Sommario/riassunto

This book reviews the cutting-edge significant research in the field of smart light-responsive materials based on azobenzene polymers and liquid crystals. Emphasis is placed on the discovery of new phenomena from the past 5 years, their underlying mechanisms, new functionalities, and properties achieved through rational design. Edited by leading authorities in the field, Zhao and Ikeda, the chapters are authored by an internationally-recognized team of experts from North America, Europe, and Asia. Smart Light-Responsive Materials will serve to catalyze new research that will lead this field ov